POWER GENERATOR SYSTEM HAVING DIODE SUPPORT AND RUPTURE CONTAINMENT DEVICE AND ASSOCIATED METHODS

Abstract Of The Disclosure

A power generator system **(10)** is provided having a power generator **(15)** and an exciter **(20)** for excitation of the power generator **(15)**. The exciter **(20)** preferably includes a diode wheel **(30)**. The diode wheel **(30)** has an a rotating support structure **(31)**, a plurality of diodes **(35)** mounted to the rotating support structure **(31)**, and a plurality of a diode support and rupture containment devices **(40)** each positioned adjacent a respective one of the plurality of diodes **(35)** to support the diode **(35)** and contain the diode **(35)** within the confines thereof in the event the diode ruptures. Each of the diode support and rupture containment devices **(40)** preferably includes a pair of spaced-apart containment members **(42, 47)** having the diode **(35)** positioned therebetween. Each of the containment members **(42, 47)** is preferably formed of an insulating material and has a substantially annular shape to thereby define an insulative disc. A method of containing material ejected from a diode **(35)** of a power generation system **(10)** is also provided. The method preferably includes pivotally connecting a rupture containment device **(40)** to a diode mounting region and adjacent a diode **(35)** of the power generation system **(10)**. The rupture containment device **(40)** includes at least one rupture containment member **(42, 47)** formed of an insulating material.